

## **REMARKS**

The applicant appreciates the interview courteously granted by Examiner Margaret Einsmann to Meera Narasimhan, Chase Karsman, and James Wray on June 18, 2002.

During that interview, the rejections, the prior art and the above amendments to the claims were discussed. The Examiner pointed out that she had considered references from the parent case. The non-elected claims may be cancelled. The change to claims 2 and 53 overcome the 35 U.S.C. § 112 rejections in the paragraph spanning pages 3 and 4 of the Office Action. Changes have been made to claims 12-14. A manufactured wood product is furniture or cabinets, for example. All of the § 112 rejections have been addressed.

The 35 U.S.C. §102 references include Dombay, with two oxidizing agent steps, Matsushita, with two-step bleaching, Bures, with three step staining. A 35 U.S.C. § 103 rejection is a combination of Dombay, Matsushita or Bures with Armstrong, with a single application of wood bleach.

Dombay, unlike claim 2, uses two steps of applying oxidizing agents, Example 4, Example 5, and oxidizing catalysts permanganate or cupric ions, col. 2, l. 60. A second treatment with a second oxidizing agent is described at Col. 3, l. 37.

Dombay does not anticipate, and leads away from, the invention as stated in claims 2-22 and 53-55.

Matsushita does not anticipate and leads away from the present invention as claimed.

Matsushita only describes "bleaching."

Matsushita uses H<sub>2</sub>O<sub>2</sub> as a bleaching agent with transition metal ions or weak alkalis as the active bleaching agent. First the weak alkali is applied; then H<sub>2</sub>O<sub>2</sub> is applied. Both steps

bleach. Transition metal ions, cobalt and nickel, may be used with the weak alkalis. Matsushita does not anticipate and leads away from the invention as pointed out in claims 2-22 and 53-33.

Bures describes staining wood by three steps, not two steps of the present invention in which the first step is ammonium, potassium, sodium, lithium or heavy metal with an acid radical OR at least one peroxide oxidizing agent.

Bures' second step applies a hydroxy aromatic, aminoaromatic, or heterocyclic compound and always has a heavy metal salt. Bures does not anticipate and leads away from the present invention pointed out in claims 2-22 and 53-55.

Armstrong does not suggest combination with any of the three references. Armstrong describes a single application of wood bleach followed by mechanical abrasion. Armstrong's entire disclosure is single step, which leads away from combination with multiple step references. Armstrong also leads away from the present invention as described in claims 2-22 and 53-55.

The § 103 rejection should be withdrawn. Armstrong teaches mixing all things together and applying in one step, which is antithetical to the present case where the compounds must come together in situ to react in situ. In the present invention, pre-mixing is impossible. (See the sentence spanning page 8 and 9).

During the interview the Examiner indicated that she would consider favorably for allowance the new independent forms of claims 7 and 8.

The Examiner argued that steps (e) and (f) of claim 2 were not steps, but indeed they are. The reacting in situ is an important step, and the separateness of the step is demonstrated that it begins immediately and takes about 5-30 minutes (p. 8, l. 25). The imparting stable change is a

separate step. See the last line of page 8, for example. For the change to be stable, the wood substrate must be dry.

The Examiner appeared to take a position that the only steps which qualify as steps are the steps such as coating, done manually. That is believed to be incorrect, and no basis for that position has been stated or is known.

Claim 2 distinguishes from each of the references by pointing out the contacting, penetrating, contacting, penetrating, reacting and imparting, which none of the references provide.

Dombay contacts with two oxidizing agents and does not have the reacting as described in claims 2 and 53.

Matsushita contacts with two bleaching agents. No reacting of the first and second formulations occurs on the wood surface, as pointed out in claim 2 of the present invention.

Bures has a three coating-step process, unlike the two coating step process described in claims 2 and 53. Bures has a middle step with a complex hydrocarbon, which is exactly what the present invention avoids, as claimed in claims 2 and 53.

Armstrong mixes everything together, which would destroy the present invention, as pointed out in claims 2 and 53 and as described in the sentence spanning pages 8 and 9.

Claims 3-22 and 54 depend from claim 2 and 53 and should be allowable with claims 2 and 53. Each dependent claim points out additional features which are not apparent in the prior art.

§ 112 objections have been avoided. The prior art does not teach or render obvious the invention as claimed.

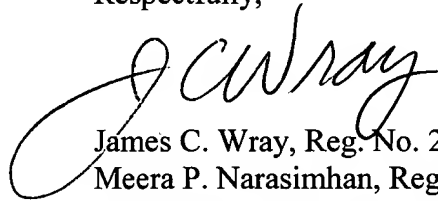
Kindly enter and approve the following, which is a clean copy of each replacement paragraph/section/claim incorporating the respective changes made, previously as well as concurrently, with the concurrent changes shown on separate sheet(s) attached hereto and entitled **"VERSION WITH MARKINGS TO SHOW CHANGES MADE."**

No new matter has been added by the amendment(s).

**CONCLUSION**

Reconsideration and allowance are respectfully requested.

Respectfully,

A handwritten signature in black ink, appearing to read 'J C Wray', is written over the typed name and address.

James C. Wray, Reg. No. 22,693  
Meera P. Narasimhan, Reg. No. 40,252  
1493 Chain Bridge Road, Suite 300  
McLean, Virginia 22101  
Tel: (703) 442-4800  
Fax: (703) 448-7397

Date: June 19, 2002

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Claims:**

Claim 19 has been canceled without prejudice.

Claims 7 and 8 have been rewritten in independent form as follows:

7. (Amended) [The method of claim 2,] A method for treating a wood substrate comprising the steps of:

(a) contacting a surface of a wood substrate with a first formulation comprising a metal salt and a solvent,

(b) penetrating the surface of the wood substrate with an effective amount of the first formulation to penetrate the wood substrate, and sequentially

(c) contacting the wood substrate with a second formulation comprising an oxidizing agent and a solvent,

(d) penetrating the surface of the wood substrate with an effective amount of the second formulation, thereby reacting the first and second formulations with each other in contact with the wood substrate, and imparting a stable change to the characteristics of the wood substrate,

wherein the metal salt is selected from the group consisting of silver sulfate, silver perchlorate, silver nitrate, silver sulfide, iron (II) chloride, zinc perchlorate, iron (II) perchlorate, iron (II) sulfate, copper acetate, [sodium thiosulfate,] magnesium thiosulfate, [potassium thiosulfate, potassium nitrate, potassium permanganate,] copper nitrate, copper II carbonate dihydroxide, copper sulfate, titanium III sulfate, magnesium nitrate, cerium (III) perchlorate, and cerium nitrate, and combinations.

8. (Amended) [The method of claim 2,] A method for treating a wood substrate comprising the steps of:

(a) contacting a surface of a wood substrate with a first formulation comprising a

metal salt and a solvent,

(b) penetrating the surface of the wood substrate with an effective amount of the first formulation to penetrate the wood substrate, and sequentially

(c) contacting the wood substrate with a second formulation comprising an oxidizing agent and a solvent,

(d) penetrating the surface of the wood substrate with an effective amount of the second formulation, thereby reacting the first and second formulations with each other in contact with the wood substrate, and imparting a stable change to the characteristics of the wood substrate,

wherein the metal salt is selected from the group consisting of molybdenum (VI) oxide, zinc sulfate, copper (II) chloride, nickel perchlorate, nickel sulfate, copper (II) chloride, nickel perchlorate, nickel sulfate, copper (II) perchlorate, tin (II) sulfate, tin (I) chloride, chromium (III) sulfate, aluminum sulfate, cerium (III) perchlorate, zinc peroxide, titanium hydride, chromium (III) perchlorate, [zinc powder,] manganese (II) chloride, aluminum chloride, titanium (IV) chloride, silver chloride, and titanium (II) sulfate, and combinations.

Claims 12, 13, 14 and 53 have been amended as follows:

12. (Amended) The method of claim 2, wherein the wood substrate is pine [a wood-like product].

13. (Amended) The method of claim 2, wherein the wood substrate is selected from the group consisting of [hardwoods,] soft woods, porous surface woods and close grain wood, and exposed wood in manufactured [wood] products.

14. (Amended) The method of claim 2, wherein the wood substrate is a [hardwood] manufactured wood product.

53. (Amended) Treating and coloring a wood substrate with the kit of claim 30, comprising the steps of:

(a) contacting the wood substrate with the first component solution preparation

comprising the oxidizable metal salt, and allowing an effective amount of the first component solution preparation to penetrate the wood substrate, and sequentially,

(b) contacting the wood substrate with the second component solution preparation comprising an oxidizing agent, and allowing an effective amount of the second component solution preparation to penetrate the wood substrate, thereby

[(c)] reacting in situ within the wood substrate the first and the second component solution preparations with each other in contact with the wood substrate, and

[(d)] imparting a stable color change to color characteristics of the wood substrate.